WOODARD & CURRAN
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CORPORATE OFFICES: Maine, Massachusetts,
New Hampshire, New York, Connecticut, Florida
Operational offices throughout the U.S.

June 28, 2006

Secretary of Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Environmental Notification Form
Acton, MA Comprehensive Water Resources Management Plan

On behalf of the Town of Acton, Massachusetts, Woodard & Curran has prepared this Environmental Notification Form for a Phase 2 Comprehensive Water Resources Management Plan (CWRMP).

The purpose of this Phase 2 CWRMP is to complete the planning process begun with the issuance of a Massachusetts Environmental Policy Act (MEPA) certificate in December 1998 for the Middle Fort Pond Brook Sewer Project. The MEPA Certificate (EOEA No. 11781) established a Special Procedure for the preparation and review of a town-wide plan.

The precursor of this report is the Phase 1 Definition of Needs report. The Secretary's Certificate for the Phase 1 report was issued on August 16, 2004. This Phase 2 report serves as both the final report and Phase 2 assessment as stipulated in the MEPA Certificate.

I am available at (978) 557-8150 if you have any questions or comments.

Sincerely,
WOODARD & CURRAN INC.

Robert J. Rafferty, P.E.
Vice President / Technical Leader

RJR/rjr
212605

Enclosure(s)

cc: Doug Halley, Town of Acton
Brent Reagor, Town of Acton
Helen Gordon, Woodard & Curran
Dan Garson, Woodard & Curran

35 New England Business Center, Suite 180 ▮ Andover, Massachusetts 01810
978-557-8150 ▮ 866-702-6371 ▮ 978-557-7948 (Fax) ▮ www.woodardcurran.com

ENVIRONMENTAL NOTIFICATION FORM

Submitted to:

EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

100 Cambridge Street
Boston, MA 02114

Submitted by:

TOWN OF ACTON
472 Main Street
Acton, MA 01720

Prepared by:

WOODARD & CURRAN, INC.
35 New England Business Center, Suite180
Andover, MA 01810

June 28, 2006

Town of Acton
Comprehensive Water Resources Management Plan
Environmental Notification Form

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Attachment 3 – Comprehensive Water Resources Management Plan
Phase 2 Report

Commonwealth of Massachusetts

Executive Office of Environmental Affairs ■ MEPA Office

ENF Environmental Notification Form

For Office Use Only *Executive Office of Environmental Affairs*
EOEA No.: MEPA Analyst: Phone: 617-626-

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Acton Comprehensive Water Resources Management Plan (CWRMP)		
Street: Town-wide		
Municipality: Acton	Watershed: SuAsCo River	
Universal Tranverse Mercator Coordinates: N/A	Latitude: N/A Longitude: N/A	
Estimated commencement date: N/A*	Estimated completion date: N/A*	
Approximate cost: N/A*	Status of project design: 10 %complete	
Proponent: Town of Acton		
Street: 472 Main Street		
Municipality: Acton	State: MA	Zip Code: 01720
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Bob Rafferty		
Firm/Agency: Woodard & Curran	Street: 35 New England Bus Ctr, STE 180	
Municipality: Andover	State: MA	Zip Code: 01810
Phone: 978-557-8150	Fax: 978-557-7948	E-mail: brafferty@woodardcurran.com

* The estimated commencement date, duration of construction and cost estimates depend on the design options chosen for each Needs Area of the Town. See the Supplemental Narrative for more information.

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)? ☐ Yes ■ No

Has this project been filed with MEPA before? ■ Yes (EOEA No. 11781) ☐ No

Has any project on this site been filed with MEPA before? **N/A** ☐ Yes (EOEA No. _____) ☐ No

Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:

a Single EIR? (see 301 CMR 11.06(8))	☐ Yes	■ No
a Special Review Procedure? (see 301CMR 11.09)	■ Yes	☐ No
a Waiver of mandatory EIR? (see 301 CMR 11.11)	☐ Yes	■ No
a Phase I Waiver? (see 301 CMR 11.11)	☐ Yes	■ No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): DEP SRF Loan

Are you requesting coordinated review with any other federal, state, regional, or local agency? ☐ Yes(Specify _____) ■ No

List Local or Federal Permits and Approvals: None required for CWRMP Adoption.

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- ☐ Land
- ☐ Water
- ☐ Energy
- ☐ ACEC
- ☐ Rare Species
- ☐ Wastewater
- ☐ Air
- ■ Regulations
- ☐ Wetlands, Waterways, & Tidelands
- ☐ Transportation
- ☐ Solid & Hazardous Waste
- ☐ Historical & Archaeological Resources

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	N/A		
New acres of land altered		N/A	
Acres of impervious area	N/A	N/A	N/A
Square feet of new bordering vegetated wetlands alteration		N/A	
Square feet of new other wetland alteration		N/A	
Acres of new non-water dependent use of tidelands or waterways		N/A	
STRUCTURES			
Gross square footage	N/A	N/A	N/A
Number of housing units	N/A	N/A	N/A
Maximum height (in feet)	N/A	N/A	N/A
TRANSPORTATION			
Vehicle trips per day	N/A	N/A	N/A
Parking spaces	N/A	N/A	N/A
WATER/WASTEWATER			
Gallons/day (GPD) of water use	N/A	N/A	N/A
GPD water withdrawal	N/A	N/A	N/A
GPD wastewater generation/ treatment	N/A	N/A	N/A
Length of water/sewer mains (in miles)	N/A	N/A	N/A

State Permits & Approvals

- ☐ Order of Conditions
- ☐ Superseding Order of Conditions
- ☐ Chapter 91 License
- ☐ 401 Water Quality Certification
- ☐ MHD or MDC Access Permit
- ☐ Water Management Act Permit
- ☐ New Source Approval
- ☐ DEP or MWRA Sewer Connection/ Extension Permit
- ■ Other Permits (*including Legislative Approvals*) – Specify:

DEP approval of CWRMP.

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

☐ Yes (Specify_____) ■ No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

☐ Yes (Specify_____) ■ No

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

☐Yes (Specify_____) ☒No

HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

☐Yes (Specify_____) ☒No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

☐Yes (Specify_____) ☒No

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?

☐Yes (Specify_____) ☒No

PROJECT DESCRIPTION: The project description should include **(a)** a description of the project site, **(b)** a description of both on-site and off-site alternatives and the impacts associated with each alternative, and **(c)** potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary*.)

Due to the complexity of the project, its regulatory history, and the number of design options to address water and wastewater management specific to different areas of the Town of Acton, a more detailed "Supplemental Narrative" is attached to this ENF, with an abbreviated project description provided below.

The project site is the Town of Acton as shown in Figure 1. In 1998, the Town's proposed construction of the Middle Fort Pond Brook Sewer Project required MEPA review. The MEPA Certificate issued for that project under EOEA No. 11781 established a phased planning process and a Special Procedure for the preparation and review of a town-wide water environmental/water resources management plan.

A Phase 1 Definition of Needs Report assessed overall environmental conditions, evaluated water resources (drinking, ground water, surface water, and wastewater) quality and quantity, and identified areas in need for alternative wastewater disposal solutions in Acton. The Phase 1 report identified 15 Needs Areas as shown in Figure 2, and was prepared and submitted to MEPA in 2004. The Secretary's Certificate in 2004 directed the Town of Acton to continue its phased studies of town-wide wastewater facilities and comprehensive water resources planning, and to prepare an Expanded ENF to be submitted as the next phase of the state review.

In Phase 2, Acton completed a Comprehensive Water Resources Management Plan (CWRMP) report that addresses the planning process for town-wide water resources management with the evaluation of alternatives as part of a 20-year plan for water resources protection in Acton. This included an assessment of Acton's wastewater disposal needs and an evaluation of the potential structural and non-structural systems and technologies for a range of on-site, localized, centralized and decentralized solutions.
The Phase 2 report scope of work was to:

- Assess town-wide wastewater management needs to update all related plans;
- Evaluate alternative solutions, techniques and technologies, costs and funding, environmental impacts, management approaches, project delivery systems and institutional arrangements;
- Pair candidate technologies/solutions with Needs Areas;

- Provide a detailed Action Plan with recommended actions, costs, and scheduling based on town approved priorities; and,
- Prepare conceptual-level designs and program outlines for the recommended plan.

The Phase 2 development process was documented through Citizens Advisory Committee (CAC) meetings. The CAC held 8 committee meetings and 4 public information meetings, and gave 3 presentations to Town boards and 1 presentation to Town Meeting over 22 months. The comprehensive nature of this report is due to input received from the CAC and residents, and the Town's long standing commitment to protecting its water resources, which is exemplified by the contributions from staff, Town officials, consultants, and residents to this study.

The Phase 2 study assessed the 15 Needs Area groupings developed in Phase 1. The areas were refined based on topography, underlying geology, and socio-economic boundaries, such as traditional neighborhood limits and economic growth areas. Rankings were further developed using technical and non-technical criteria. Non-technical criteria included the ability to implement solutions; projected growth, especially economic growth in areas designated for growth; optimization of the current wastewater infrastructure and wastewater treatment facility (WWTF); and water reuse (reclaimed water use) and recharge of groundwater/aquifers. Rankings were finalized through CAC involvement by identifying the criteria most important to each Needs Planning Area, followed by prioritization of solutions. Figure 3 shows the priority ranking of the Needs Planning Areas.

Potential solutions were identified that addressed the needs criteria and resolved environmental and public health concerns. The CAC then ranked the solutions, identifying preferred solutions for each Needs Planning Area that reflected the community's goals for each area. For areas outside of Needs Areas, which is the majority of Acton, the Phase 2 study recommended continued reliance on onsite wastewater systems (do nothing) under the existing management framework.

The Phase 2 study led to recommendations of viable solutions for the Needs Planning Areas, including (singly or in combination) the following:

- Continued reliance on onsite wastewater systems ("no action") in suitable locations but with a town-driven management system that includes expanded monitoring and stricter treatment standards – this includes shared systems;
- Cluster collection and treatment systems, including use of existing in-town private treatment facilities, which can include private entities and private/public solutions;
- Expansion of the Middle Fort Pond Brook sewer system with treatment and disposal at the existing Adams Street treatment facility to address high priority areas and optimize the operation of the system; and
- Continued monitoring of new technologies and opportunities for new solutions over the course of the 20-year planning period.

The current wastewater disposal system for the majority of the parcels in Acton will remain unchanged. The recommended plan is a combination of extensions of the existing sewers, cluster systems using existing private treatment systems and possible public/private solutions, shared systems between neighbors where appropriate, and the establishment of wastewater management districts. Figure 4 illustrates the town-wide CWRMP framework developed from these studies.

Based upon the detailed studies for the Phase 1 and 2 analyses and assessments, the Town of Acton has provided a full environmental and impact assessment, including the comparative evaluation of alternatives, assessment of impacts and mitigation measures, and identification of elements where future changes could require re-assessment of the plan's findings and recommendations. Such re-assessment may also require re-filing with MEPA should any

significant change result. We believe that the Phase 2 study, together with the extensive CAC process, outreach, public meetings, and public comment already carried out for the Acton CWRMP adequately and fully addresses the MEPA process and should be approved by having met the objectives stated in the Secretary's Certificate. We, therefore, respectfully request that the Secretary accept the Phase 2 CWRMP and grant Acton the right to submit the document to DEP for final approval without requiring an EIR.

LAND SECTION – all proponents must fill out this section

I. Thresholds / Permits

A. Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1) ___ Yes _X__ No; if yes, specify each threshold:

II. Impacts and Permits

A. Describe, in acres, the current and proposed character of the project site, as follows:

	Existing	Change	Total
Footprint of buildings	__N/A_____	__N/A_____	_N/A__
Roadways, parking, and other paved areas	__ N/A_____	__N/A_____	_N/A __
Other altered areas (describe)	__ N/A_____	__N/A_____	_N/A __
Undeveloped areas	__ N/A_____	__N/A_____	_N/A __

B. Has any part of the project site been in active agricultural use in the last three years? ___ Yes _X__ No; if yes, how many acres of land in agricultural use (with agricultural soils) will be converted to nonagricultural use?

C. Is any part of the project site currently or proposed to be in active forestry use? ___ Yes X___ No; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a DEM-approved forest management plan:

D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97? ___ Yes _X__ No; if yes, describe:

E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction? ___ Yes _X__ No; if yes, does the project involve the release or modification of such restriction? ___ Yes _X__ No; if yes, describe:

F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A? ___ Yes _X__ No; if yes, describe:

G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? Yes ___ No _X__ ; if yes, describe:

H. Describe the project's stormwater impacts and, if applicable, measures that the project will take to comply with the standards found in DEP's Stormwater Management Policy: There will be no changes to the storm water systems currently in place.

I. Is the project site currently being regulated under M.G.L.c.21E or the Massachusetts Contingency Plan? Yes ___ No _X__ ; if yes, what is the Release Tracking Number (RTN)?

J. If the project is site is within the Chicopee or Nashua watershed, is it within the Quabbin, Ware, or Wachusett subwatershed? ___ Yes _X__ No; if yes, is the project site subject to regulation under the Watershed Protection Act? ___ Yes ___ No

K. Describe the project's other impacts on land: None. Future implementation of the CWRMP may result in construction of sewer piping and related wastewater infrastructure within street right of ways to the extent possible.

III.. Consistency

A. Identify the current municipal comprehensive land use plan and the open space plan and describe the consistency of the project and its impacts with that plan(s):

The CWRMP is derived from and consistent with Acton's existing land use plans and policies, including the 1998 Master Plan Update. Potential economic growth areas include West Acton Center/Village and East Acton Village, both identified by the CWRMP as needs areas. The village areas in particular have developed special planning documents and zoning that target the villages for economic growth, but in character with the existing mixed-use environment. The CWRMP is an extension of these plans and provides a guide to future planning and resource management.

B. Identify the current Regional Policy Plan of the applicable Regional Planning Agency and describe the consistency of the project and its impacts with that plan:

The Metropolitan Area Planning Council (MAPC) began the MetroPlan planning process in 1987 to develop a cohesive vision for economic development within the 101 cities and towns in the MAPC's region.

From the MAPC's website, "The basic tenet of the plan is that concentrating development is economically and environmentally more practical than our current mode of scattered growth." The Town of Acton's Master Plan incorporates this vision. The CWRMP is an extension of the Town's plans and provides a guide to future planning and resource management.

C. Will the project require any approvals under the local zoning by-law or ordinance (i.e. text or map amendment, special permit, or variance)? Yes ___ No _X__ ; if yes, describe:

D. Will the project require local site plan or project impact review?
___ Yes _X__ No; if yes, describe:

RARE SPECIES SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **rare species or habitat** (see 301 CMR 11.03(2))? ___ Yes _X__ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **rare species or habitat**? __ Yes _X__ No

C. If you answered "No" to both questions A and B, proceed to the **Wetlands, Waterways, and Tidelands Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Rare Species section below.

II. Impacts and Permits

A. Does the project site fall within Priority or Estimated Habitat in the current Massachusetts Natural Heritage Atlas (attach relevant page)? ___ Yes _ __ No. If yes,

1. Which rare species are known to occur within the Priority or Estimated Habitat (contact: Environmental Review, Natural Heritage and Endangered Species Program, Route 135, Westborough, MA 01581, allowing 30 days for receipt of information):
2. Have you surveyed the site for rare species? ___ Yes ___ No; if yes, please include the results of your survey.
3. If your project is within Estimated Habitat, have you filed a Notice of Intent or received an Order of Conditions for this project? ___ Yes ___ No; if yes, did you send a copy of the Notice of Intent to the Natural Heritage and Endangered Species Program, in accordance with the Wetlands Protection Act regulations? ___ Yes ___ No

B. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? ___ Yes ___ No; if yes, describe:

C. Will the project alter "significant habitat" as designated by the Massachusetts Division of Fisheries and Wildlife in accordance with M.G.L. c.131A (see also 321 CMR 10.30)? ___ Yes ___ No; if yes, describe:

D. Describe the project's other impacts on rare species including indirect impacts (for example, stormwater runoff into a wetland known to contain rare species or lighting impacts on rare moth habitat):

WETLANDS, WATERWAYS, AND TIDELANDS SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wetlands, waterways, and tidelands** (see 301 CMR 11.03(3))? ___ Yes _X__ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits (or a local Order of Conditions) related to **wetlands, waterways, or tidelands**? ___ Yes _X__ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Water Supply Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wetlands, Waterways, and Tidelands Section below.

II. Wetlands Impacts and Permits

A. Describe any wetland resource areas currently existing on the project site and indicate them on the site plan:

B. Estimate the extent and type of impact that the project will have on wetland resources, and indicate whether the impacts are temporary or permanent:

Coastal Wetlands	Area (in square feet) or Length (in linear feet)
Land Under the Ocean	_____
Designated Port Areas	_____
Coastal Beaches	_____
Coastal Dunes	_____
Barrier Beaches	_____
Coastal Banks	_____
Rocky Intertidal Shores	_____
Salt Marshes	_____
Land Under Salt Ponds	_____
Land Containing Shellfish	_____
Fish Runs	_____
Land Subject to Coastal Storm Flowage	_____
Inland Wetlands	
Bank	_____
Bordering Vegetated Wetlands	_____
Land under Water	_____
Isolated Land Subject to Flooding	_____
Bordering Land Subject to Flooding	_____
Riverfront Area	_____

C. Is any part of the project

1. a limited project? ___ Yes ___ No
2. the construction or alteration of a dam? ___ Yes ___ No; if yes, describe:
3. fill or structure in a velocity zone or regulatory floodway? ___ Yes ___ No
4. dredging or disposal of dredged material? ___ Yes ___ No; if yes, describe the volume of dredged material and the proposed disposal site:
5. a discharge to Outstanding Resource Waters? ___ Yes ___ No
6. subject to a wetlands restriction order? ___ Yes ___ No; if yes, identify the area (in square feet):

D. Does the project require a new or amended Order of Conditions under the Wetlands Protection Act (M.G.L. c.131A)? ___ Yes ___ No; if yes, has a Notice of Intent been filed or a local Order of Conditions issued? ___ Yes ___ No; if yes, list the date and DEP file number:_____. Was the Order of Conditions appealed? ___ Yes ___ No. Will the project require a variance from the Wetlands regulations? ___ Yes ___ No.

E. Will the project:

1. be subject to a local wetlands ordinance or bylaw? ___ Yes ___ No
2. alter any federally-protected wetlands not regulated under state or local law? ___ Yes ___ No; if yes, what is the area (in s.f.)?

F. Describe the project's other impacts on wetlands (including new shading of wetland areas or removal of tree canopy from forested wetlands):

III. Waterways and Tidelands Impacts and Permits

A. Is any part of the project site waterways or tidelands (including filled former tidelands) that are subject to the Waterways Act, M.G.L.c.91? ___ Yes ___ No; if yes, is there a current Chapter 91 license or permit affecting the project site? ___ Yes ___ No; if yes, list the date and number:

B. Does the project require a new or modified license under M.G.L.c.91? ___ Yes ___ No; if yes, how many acres of the project site subject to M.G.L.c.91 will be for non-water dependent use?

Current ___ Change ___ Total ___

C. Is any part of the project

1. a roadway, bridge, or utility line to or on a barrier beach? ___ Yes _____ No; if yes, describe:
2. dredging or disposal of dredged material? ___ Yes ___ No; if yes, volume of dredged material _____
3. a solid fill, pile-supported, or bottom-anchored structure in flowed tidelands or other waterways? ___ Yes ___ No; if yes, what is the base area? _____
4. within a Designated Port Area? ___ Yes ___ No

D. Describe the project's other impacts on waterways and tidelands: **None**

IV. Consistency:

A. Is the project located within the Coastal Zone? ___ Yes ___ No; if yes, describe the project's consistency with policies of the Office of Coastal Zone Management:

B. Is the project located within an area subject to a Municipal Harbor Plan? ___ Yes ___ No; if yes, identify the Municipal Harbor Plan and describe the project's consistency with that plan:

WATER SUPPLY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **water supply** (see 301 CMR 11.03(4))? ___ Yes __X_ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **water supply**? ___ Yes _X__ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Wastewater Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Water Supply Section below.

II. Impacts and Permits

A. Describe, in gallons/day, the volume and source of water use for existing and proposed activities at the project site:

	Existing	Change	Total
Withdrawal from groundwater	_____	_____	_____
Withdrawal from surface water	_____	_____	_____

Interbasin transfer	_____	_____	_____
Municipal or regional water supply	_____	_____	_____

B. If the source is a municipal or regional supply, has the municipality or region indicated that there is adequate capacity in the system to accommodate the project? ___ Yes ___ No

C. If the project involves a new or expanded withdrawal from a groundwater or surface water source,

1. have you submitted a permit application? ___ Yes ___ No; if yes, attach the application
2. have you conducted a pump test? ___ Yes ___ No; if yes, attach the pump test report

D. What is the currently permitted withdrawal at the proposed water supply source (in gallons/day)? _____Will the project require an increase in that withdrawal?___ Yes ___ No

E. Does the project site currently contain a water supply well, a drinking water treatment facility, water main, or other water supply facility, or will the project involve construction of a new facility? ___ Yes ___ No. If yes, describe existing and proposed water supply facilities at the project site:

	Existing	Change	Total
Water supply well(s) (capacity, in gpd)	_____	_____	_____
Drinking water treatment plant (capacity, in gpd)	_____	_____	_____
Water mains (length, in miles)	_____	_____	_____

F. If the project involves any interbasin transfer of water, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or proposed?

G. Does the project involve

1. new water service by a state agency to a municipality or water district? ___ Yes ___ No
2. a Watershed Protection Act variance? ___ Yes ___ No; if yes, how many acres of alteration?
3. a non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking water supply for purpose of forest harvesting activities? ___ Yes ___ No

H. Describe the project's other impacts (including indirect impacts) on water resources, quality, facilities and services:

III. Consistency -- Describe the project's consistency with water conservation plans or other plans to enhance water resources, quality, facilities and services:

WASTEWATER SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wastewater** (see 301 CMR 11.03(5))? ___ Yes __X_ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **wastewater**? _ __ Yes _X__ No; if yes, specify which permit:
DEP review of the CWRMP only.

C. If you answered "No" to both questions A and B, proceed to the **Transportation -- Traffic Generation Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wastewater Section below.

II. Impacts and Permits

A. Describe, in gallons/day, the volume and disposal of wastewater generation for existing and proposed activities at the project site (calculate according to 310 CMR 15.00):

	Existing	Change	Total
Discharge to groundwater (Title 5)	_____	_____	_____
Discharge to groundwater (non-Title 5)	_____	_____	_____
Discharge to outstanding resource water	_____	_____	_____
Discharge to surface water	_____	_____	_____
Municipal or regional wastewater facility	_____	_____	_____
TOTAL	_____	_____	_____

B. Is there sufficient capacity in the existing collection system to accommodate the project? ___ Yes ___ No; if no, describe where capacity will be found:

C. Is there sufficient existing capacity at the proposed wastewater disposal facility?___ Yes ___ No; if no, describe how capacity will be increased:

D. Does the project site currently contain a wastewater treatment facility, sewer main, or other wastewater disposal facility, or will the project involve construction of a new facility? ___ Yes ___ No. If yes, describe as follows:

	Existing	Change	Total
Wastewater treatment plant (capacity, in gpd)	_____	_____	_____
Sewer mains (length, in miles)	_____	_____	_____
Title 5 systems (capacity, in gpd)	_____	_____	_____

E. If the project involves any interbasin transfer of wastewater, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or proposed?

F. Does the project involve new sewer service by an Agency of the Commonwealth to a municipality or sewer district? ___ Yes _ __ No

G. Is there any current or proposed facility at the project site for the storage, treatment, processing, combustion or disposal of sewage sludge, sludge ash, grit, screenings, or other sewage residual materials? ___ Yes ___ No; if yes, what is the capacity (in tons per day):

	Existing	Change	Total
Storage	_____	_____	_____
Treatment, processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

H. Describe the project's other impacts (including indirect impacts) on wastewater generation and treatment facilities:

III. Consistency -- Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to wastewater management:

A. If the project requires a sewer extension permit, is that extension included in a comprehensive wastewater management plan? ___ Yes ___ No; if yes, indicate the EOEA number for the plan and describe the relationship of the project to the plan

TRANSPORTATION -- TRAFFIC GENERATION SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **traffic generation** (see 301 CMR 11.03(6))? ___ Yes _X__ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **state-controlled roadways**? ___ Yes _X__ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Roadways and Other Transportation Facilities Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Traffic Generation Section below.

II. Traffic Impacts and Permits

A. Describe existing and proposed vehicular traffic generated by activities at the project site:

	Existing	Change	Total
Number of parking spaces	_____	_____	_____
Number of vehicle trips per day	_____	_____	_____

ITE Land Use Code(s):

B. What is the estimated average daily traffic on roadways serving the site?

Roadway	Existing	Change	Total
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

C. Describe how the project will affect transit, pedestrian and bicycle transportation facilities and services:

III. Consistency -- Describe measures that the proponent will take to comply with municipal, regional, state, and federal plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services:

ROADWAYS AND OTHER TRANSPORTATION FACILITIES SECTION

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **roadways or other transportation facilities** (see 301 CMR 11.03(6))? ___ Yes _X__ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **roadways or other transportation facilities**? ___ Yes _X__ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Energy Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Roadways Section below.

II. Transportation Facility Impacts

A. Describe existing and proposed transportation facilities at the project site:

	Existing	Change	Total
Length (in linear feet) of new or widened roadway	_____	_____	_____
Width (in feet) of new or widened roadway	_____	_____	_____

Other transportation facilities:

B. Will the project involve any

1. Alteration of bank or terrain (in linear feet)? _____
2. Cutting of living public shade trees (number)? _____
3. Elimination of stone wall (in linear feet)? _____

III. Consistency -- Describe the project's consistency with other federal, state, regional, and local plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services, including consistency with the applicable regional transportation plan and the Transportation Improvements

Plan (TIP), the State Bicycle Plan, and the State Pedestrian Plan:

ENERGY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **energy** (see 301 CMR 11.03(7))? ___ Yes _X__ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **energy**? ___ Yes _X__ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Air Quality Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Energy Section below.

II. Impacts and Permits

A. Describe existing and proposed energy generation and transmission facilities at the project site:

	Existing	Change	Total
Capacity of electric generating facility (megawatts)	_____	_____	_____
Length of fuel line (in miles)	_____	_____	_____
Length of transmission lines (in miles)	_____	_____	_____
Capacity of transmission lines (in kilovolts)	_____	_____	_____

B. If the project involves construction or expansion of an electric generating facility, what are
1. the facility's current and proposed fuel source(s)?
2. the facility's current and proposed cooling source(s)?

C. If the project involves construction of an electrical transmission line, will it be located on a new, unused, or abandoned right of way?___ Yes ___ No; if yes, please describe:

D. Describe the project's other impacts on energy facilities and services:

III. Consistency -- Describe the project's consistency with state, municipal, regional, and federal plans and policies for enhancing energy facilities and services:

AIR QUALITY SECTION

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **air quality** (see 301 CMR 11.03(8))? ___ Yes _X__ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **air quality**? ___ Yes _X__ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Solid and Hazardous Waste Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Air Quality Section below.

II. Impacts and Permits

A. Does the project involve construction or modification of a major stationary source (see 310 CMR 7.00, Appendix A)?___ Yes ___ No; if yes, describe existing and proposed emissions (in tons per day) of:

	Existing	Change	Total
Particulate matter	_____	_____	_____
Carbon monoxide	_____	_____	_____
Sulfur dioxide	_____	_____	_____

Volatile organic compounds	_____	_____	_____
Oxides of nitrogen	_____	_____	_____
Lead	_____	_____	_____
Any hazardous air pollutant	_____	_____	_____
Carbon dioxide	_____	_____	_____

B. Describe the project's other impacts on air resources and air quality, including noise impacts:

III. Consistency

A. Describe the project's consistency with the State Implementation Plan:

B. Describe measures that the proponent will take to comply with other federal, state, regional, and local plans and policies related to air resources and air quality:

SOLID AND HAZARDOUS WASTE SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **solid or hazardous waste** (see 301 CMR 11.03(9))? ___ Yes _X__ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **solid and hazardous waste**? ___ Yes _X__ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Historical and Archaeological Resources Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Solid and Hazardous Waste Section below.

II. Impacts and Permits

A. Is there any current or proposed facility at the project site for the storage, treatment, processing, combustion or disposal of solid waste? ___ Yes ___ No; if yes, what is the volume (in tons per day) of the capacity:

	Existing	Change	Total
Storage	_____	_____	_____
Treatment, processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

B. Is there any current or proposed facility at the project site for the storage, recycling, treatment or disposal of hazardous waste? ___ Yes ___ No; if yes, what is the volume (in tons or gallons per day) of the capacity:

	Existing	Change	Total
Storage	_____	_____	_____
Recycling	_____	_____	_____
Treatment	_____	_____	_____
Disposal	_____	_____	_____

C. If the project will generate solid waste (for example, during demolition or construction), describe alternatives considered for re-use, recycling, and disposal:

D. If the project involves demolition, do any buildings to be demolished contain asbestos? ___ Yes ___ No

E. Describe the project's other solid and hazardous waste impacts (including indirect impacts):

III. Consistency--Describe measures that the proponent will take to comply with the State Solid Waste Master Plan:

HISTORICAL AND ARCHAEOLOGICAL RESOURCES SECTION

I. Thresholds / Impacts

A. Is any part of the project site a historic structure, or a structure within a historic district, in either case listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes _X__ No; if yes, does the project involve the demolition of all or any exterior part of such historic structure? ___ Yes _X__ No; if yes, please describe:

B. Is any part of the project site an archaeological site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes _X__ No; if yes, does the project involve the destruction of all or any part of such archaeological site? ___ Yes _X__ No; if yes, please describe:

C. If you answered "No" to all parts of both questions A and B, proceed to the **Attachments and Certifications** Sections. If you answered "Yes" to any part of either question A or question B, fill out the remainder of the Historical and Archaeological Resources Section below.

D. Have you consulted with the Massachusetts Historical Commission? ___ Yes ___ No; if yes, attach correspondence

E. Describe and assess the project's other impacts, direct and indirect, on listed or inventoried historical and archaeological resources:

II. Consistency -- Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to preserving historical and archaeological resources:

ATTACHMENTS:

1. Plan, at an appropriate scale, of existing conditions of the project site and its immediate context, showing all known structures, roadways and parking lots, rail rights-of-way, wetlands and water bodies, wooded areas, farmland, steep slopes, public open spaces, and major utilities.
2. Plan of proposed conditions upon completion of project (if construction of the project is proposed to be phased, there should be a site plan showing conditions upon the completion of each phase).
3. Original U.S.G.S. map or good quality color copy (8-½ x 11 inches or larger) indicating the project location and boundaries
4. List of all agencies and persons to whom the proponent circulated the ENF, in accordance with 301 CMR 11.16(2).
5. Other: Figures and Phase 2 CWRMP report as listed in the Cover Page Table of Contents

CERTIFICATIONS:

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

   The Beacon

2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

Date — Signature of Responsible Officer or Proponent

Name: Doug Halley

Firm/Agency: Acton Board of Health

Street: 472 Main Street

Municipality/State/Zip: Acton, MA 01720

Phone 978-264-9634

Date — Signature of person preparing ENF (if different from above)

Name: Robert Rafferty, P.E.

Firm/Agency: Woodard & Curran, Inc.

Street: 35 New England Business Center, Suite 180

Municipality/State/Zip: Andover, MA 01810

Phone: 866-702-6371

SUPPLEMENTAL NARRATIVE:

The purpose of this Phase 2 Comprehensive Water Resources Management Plan (CWRMP) is to complete the formal planning process stipulated by the Massachusetts Environmental Policy Act (MEPA) certificate issued in December 1998 for the Middle Fort Pond Brook Sewer Project. The MEPA Certificate (EOEA No. 11781) established a Special Procedure for the preparation and review of a town-wide plan plus the approval to complete the permitting and construction of the Middle Port Pond Brook sewers and wastewater treatment plant.

The CWRMP is comprised of two reports. The precursor to the Phase 2 report is the Phase 1 Definition of Needs report, which assessed overall environmental conditions, evaluated water resources (drinking, ground water, surface water, wastewater) quality and quantity, and identified areas in need for alternative wastewater disposal solutions in Acton. The Phase 1 report identified 15 Needs Areas.

The Phase 1 report was prepared and submitted to MEPA in 2004. The Secretary's Certificate on the Phase 1 report was issued on August 16, 2004. In it, MEPA and EOEA directed Acton to continue its phased studies of town-wide wastewater facilities and comprehensive water resources planning that make up the CWRMP and to prepare an Expanded ENF to be submitted as the next phase of the state review.

The Town of Acton and Woodard & Curran have completed the CWRMP report and hereby submit this report to MEPA and DEP, as well as other state and local agencies and the public, for review and approval. The Town of Acton and Woodard & Curran have concluded that because the CWRMP has adequately addressed the elements and substance of an Environmental Impact Report (EIR), including alternatives analysis, resource protection, mitigation measures, costs, technical feasibility, and institutional viability, an EIR is not required.

The Phase 2 CWRMP serves as both final report and Phase 2 assessment, as outlined in the MEPA Certificate. This Phase 2 report evaluates alternatives to provide a 20-year plan for water resources protection in Acton. Included in this CWRMP are an assessment of Acton's wastewater disposal needs and an evaluation of the potential structural and non-structural systems and technologies for a range of on-site, localized, centralized and decentralized solutions.

The Phase 2 report scope of work was to:

- Assess town-wide wastewater management needs to update all related plans;
- Evaluate alternative solutions, wastewater techniques and technologies, costs and funding, environmental impacts, management approaches, project delivery systems and institutional arrangements;
- Pair candidate technologies/solutions with Needs Areas;
- Provide a detailed Action Plan with recommended actions, costs, and scheduling based on town approved priorities; and,
- Prepare conceptual-level designs and program outlines for the recommended plan.

The Phase 2 process can be followed in detail through the content of the Citizens Advisory Committee (CAC) meeting minutes, included as an Appendix to the CWRMP Phase 2 report. The CAC held 8 committee meetings and 4 public information meetings, and gave 3 presentations to Town boards and 1 presentation to Town Meeting over 22 months, in addition to subcommittee meetings held to focus on specific issues such as groundwater recharge near

drinking water aquifers.

The CAC was instrumental in setting priorities and selecting solutions. The Project Team and CAC recognize that water resources are interconnected within Acton and its watershed. Therefore, considerable discussion and effort were involved in assessing the CWRMP's role in the long-term sustainability of Acton's overall watershed health.

The result is a holistic and integrated approach to management of drinking water, wastewater, stormwater, and surface and groundwater resources. The comprehensive nature of this report is due to input received from the CAC and residents, and the Town's long standing commitment to protecting its water resources, which is exemplified by the contributions from staff to this study.

This CWRMP relates water resource health to wastewater disposal and incorporates programs focused on management of drinking water, stormwater, surface water, and groundwater as integral components of a sustainable program.

The Town's historical focus on water resources protection has generated regulations, programs, and tools that form the foundation for the CWRMP and its recommendations. Examples of this focus are the Wastewater Management Plan produced by the Health Department in 1998 and the Health Department's ongoing surface water and groundwater sampling programs.

Assessment of Alternatives

More than 80% of residents are served by individually owned and maintained onsite wastewater systems. The remainder of the town is served by a combination of a public sewer system and nine privately owned package wastewater treatment facilities. In February 2002, Acton opened the Middle Fort Pond Brook Wastewater Treatment Facility on Adams Street, a sequencing batch reactor (SBR)-style facility. The collection system includes 70,000 linear feet of sewer and 10 pump stations. The system is designed to serve almost 10% of the community, with modular expansion capability to address future needs.

From this existing basis, the CWMRP assesses alternatives for the remainder of town not served by the central sewer. The assessment process can be described as a sequence of five steps that begin with large scale issues and work towards solutions to specific needs. The Phase 1 report is comprised of Step 1 and Step 2, while the Phase 2 report consists of Step 3 through Step 5.

Step 1 – Identify Needs in Acton using data from Board of Health records, CAC input, previous reports and studies, water sampling, and local regulations and bylaws that form the basis for the analysis of the "needs". Potential technical alternatives for wastewater collection, treatment, disposal and management are evaluated.

Step 2 – Create Needs Areas based on the technical evaluation and on "non-technical" parameters. Technical criteria include regulatory setback requirements and design parameters. The non-technical criteria process was used to verify the selection of technical Needs Areas and ensure that the community's entire needs were considered. The Project Team presented potential technological solutions to the CAC for evaluation. In-town locations for disposal facilities were identified though an evaluation similar to the needs assessment.

Step 3 – Create Needs Planning Areas by assessing the 15 Needs Area groupings developed in Phase 1. The 15 Needs Areas are shown in Figure 2. Step 3 begins the Phase 2 process. The areas were refined based on topography, underlying geology, and socio-economic boundaries such as traditional neighborhood limits and economic growth areas.

Step 4 – Finalize Criteria Ranking by assessing the criteria. The CAC agreed that technical criteria all addressed environmental concerns and are therefore of equal rank, but some "non-technical" criteria are more important than others. Priority non-technical criteria include ability to implement; growth, especially economic growth in areas designated for growth; optimization of the current wastewater infrastructure and wastewater treatment facility (WWTF); and water reuse (reclaimed water use) and recharge of groundwater/aquifers. These criteria are not explicitly attached to specific areas; rather they are primary criteria for all areas.

Step 5 – Rank Needs Planning Areas by identifying the criteria most important to each Needs Planning Area (Area) and prioritizing the Areas, followed by prioritization of solutions.

Evaluation of Alternatives

The CAC considered some solutions as not applicable. Generally, connection to the existing collection system for Needs Planning Areas north of Route 2, or construction of new collection and treatment system for Needs Planning Areas adjacent to the existing collection system were considered not feasible.

Potential solutions were identified that addressed the needs criteria and resolved environmental and public health concerns. The CAC then ranked the solutions, identifying preferred solutions for each Area that reflected the community's goals for each area. The ranking was conducted through discussion and vote and reflected the technical and non-technical criteria. However, the CAC understood the balance between available solutions and the ability to implement preferred solutions. The preferred solutions might not be readily able to be implemented because of constraints such as cost or disposal capacity. Therefore, the goal of the assessment was to present the preferred solution with a menu of alternative solutions that addressed the underlying needs and present a framework for the 20-year planning period.

The CAC prioritized off-site solutions because on-site solutions, including establishing special wastewater management districts, were the default solution for all the Needs Areas.

The CAC ranked the Needs Planning Areas into three categories (High, Medium, Low) as shown in Figure 3. The High Priority areas ranked from highest to lowest priority are:

1. Powdermill Plaza (Area 7)
2. Spencer Road/ Tuttle/ Flint/ Mallard (Area 10)
3. West Acton Center (Area 12)
4. Indian Village (Area 13)
5. East Acton Village (Area 3)

Medium Priority areas are:

- Marshall Crossing/ Robbins Brook/ North Acton Village (Area 1)
- Brucewood Estates (Area 5)
- Maynard Border (Area 8)
- Nash/Downey Roads (Area 11)
- Flagg Hill (Area 14)

Low Priority areas are:

- North Acton Condos/ Acorn Park/ North Acton Woods (Area 2)
- Concord Road / Robbins Park (Area 4)
- Brookside Circle (Area 6)
- Heath Hen Meadow (Area 9)
- Acton Center/ Patriot's Hill (Area 15)

Potential Solutions

The Needs Assessment demonstrated a need to address wastewater disposal issues. The potential solutions derived from the Phase 1 process included a combination of the following:

- Continued reliance on onsite wastewater systems (no action) under the existing management framework; by definition, the "no action" alternative is unsuitable for the Needs Areas but may be suitable for areas outside the Needs Areas;
- Continued reliance on onsite wastewater systems but with a town-driven management system that includes expanded monitoring and stricter treatment standards;
- Cluster / Satellite collection and treatment systems; and,
- Central collection with treatment at the Adams Street wastewater treatment facility
- Public use of in-town private treatment facilities.

Structural Solutions

The Phase 1 report identified four sites as potential locations for wastewater treatment and disposal systems. As part of Phase 2 the Project Team developed a scope for a preliminary hydrogeologic site evaluation of the four sites. A fieldwork program was implemented at the following sites to determine the capacity of each site to accept dispersal of water:

- Wetherbee Street / Route 2 – Service to High Priority Area 3 and Area 4
- Adams Street – Potential expansion of the Adams Street WWTF
- High Street – Potential expansion of the Adams Street WWTF
- North Acton – Potential service to Medium Priority Area 1

As the Town looked for viable locations for discharge it recognized the potential value of the W.R Grace property, off Independence Road, such as size, proximity, groundwater depths and soil types but ultimately did not choose to analyze the site because EPA's Record of Decision regarding the site's remediation had not yet been issued.

The most promising location, hydrogeologically, was the Wetherbee Street site, which is aligned with the East Acton Areas (Area 3 and Area 4) as an offsite alternative. However, research into the availability of the parcel uncovered a deeded legislative conservation restriction, which would return the parcel to Commonwealth control if used for purposes other than conservation. The Town will clarify the inaccessibility of the Wetherbee Street site to determine if this parcel is a nonviable alternative for East Acton, but given the restriction and local preferences to maintain the village character of East Acton, no further active evaluation is proposed for this parcel.

The potential disposal areas all had drawbacks that limit the Town's options. But, each Area associated with the four dispersal locations had other viable solutions in addition to construction of a satellite treatment and disposal facility. Therefore, further hydrogeologic study was not recommended as part of the CWRMP.

Recharge/reuse of reclaimed water was investigated by a subgroup of the CAC, the Indirect Potable Reuse Working Group (IPRWG). Within the context of the Acton's 20-year CWRMP,

reuse of highly treated wastewater treatment plant effluent was viewed as a potentially feasible aquifer recharge method, contributing to the preservation of the hydrologic cycle. The IPRWG suggested that further exploration of this alternative was warranted, and recommended that the first step of this further study could consist of a small scale pilot study at the Adams Street WWTF, close coordination with state and federal regulators, and study of other programs.

Extensions of the existing Middle Fort Pond Brook sewer system provided a feasible alternative to areas south of Route 2 because the system was designed with additional capacity in anticipation of future needs. The wastewater treatment facility currently has a permit to discharge 299,000 gallons per day, of which approximately 50,000 gpd is available for future connections outside of the sewered area.

The Town of Acton has entered into a design contract for the High Street Extension Project, which is expected to be constructed in summer 2006. This project is intended to allow the decommissioning of the existing treatment facility at Powdermill Plaza while servicing the remaining properties in this corner of Acton. This project will use approximately 7,000 gpd of available capacity, leaving about 43,000 gpd for future connections. A DEP Sewer Extension Permit was obtained for this new sewer connection (Appendix G of the CWRMP). This new sewer connection did not represent a new ENF trigger, as it was not a) an expansion in the flow to a wastewater treatment and/or disposal facility by 10% of existing capacity; b) five or more miles in length or; c) half or more miles in length outside of the right of way of existing roadways.

Non-Structural Solutions

The definition of a "Wastewater Management District" is varied according to the level of management implemented under the auspices of one of these programs across the country. Although the specifics of the individual programs may vary, the foundational principles are the same: *Greater levels of environmental and public health protection through the delineation of a specific area within which the design, construction, operation, and maintenance of onsite wastewater treatment systems will be more closely regulated.*

Acton, because of its complete reliance on decentralized wastewater systems until the late 1990s and ongoing reliance on these systems for 90% of its population today, has always worked within a Septage Management Program structure that has matured over time into its current version.

The current Septage Management structure includes:

- The permitting and installation of conventional onsite systems – defined as a system with a septic tank and a soil dispersal area – in accordance with a set of prescriptive codes;
- A function-based inspection of systems at time of property transfer;
- Required lifetime operation and maintenance (O&M) contracts with reporting and effluent sampling requirements on advanced onsite treatment technologies; and,
- A regulation requiring the pumping of conventional septic tanks at least once every two years.

Recommended Plan
For areas outside of Needs Areas, which is the majority of Acton, the Phase 2 report recommended continued reliance on onsite wastewater systems (do nothing) under the existing management framework.

The Phase 2 report recommended several viable solutions for the Needs Planning Areas, including (singly or in combination) the following:

- Continued reliance on onsite wastewater systems but with a town-driven management system that includes expanded monitoring and stricter treatment standards – this includes shared systems;
- Cluster collection and treatment systems, including use of existing in-town private treatment facilities, which can include private entities and private/public solutions;
- Expansion of the Middle Fort Pond Brook sewer system with treatment and disposal at the Adams Street treatment facility to address high priority areas and optimize the operation of system; and
- Continued monitoring of new technologies and opportunities over the course of the 20-year planning period for new solutions.

Figure 4 presents the recommended solutions. The current wastewater disposal system for the majority of the parcels in Acton will remain unchanged. The recommended plan is a combination of extensions of the existing sewers, cluster systems using existing private treatment systems and possible public/private solutions, shared systems between neighbors where appropriate, and the establishment of wastewater management districts.

The recommended expansion of the Middle Fort Pond Brook sewer system to the Spencer/Tuttle/ Flint neighborhood and West Acton Center would increase the flow to the Adams Street WWTF by approximately 40,000 gpd. The town will submit a new ENF for the future project to satisfy the 10% flow increase criterion in 301 CMR 11.03(5) (b) - ENF and Other MEPA Review if the Secretary So Requires. The recommended structural (sewer) solutions will not require an expansion or alteration of the existing Adams Street treatment and disposal facility.

The CWRMP's proactive public outreach program is anticipated to continue following the submittal of the CWRMP and expanded ENF to keep Acton residents apprised of environmental issues such as wastewater disposal and watershed health. The program will be coordinated with other outreach efforts from the Board of Health and Acton Water District, as well as the NPDES Phase II stormwater program, which includes public participation and public outreach as minimum control measures.

<u>Sewer Extensions:</u>

Extensions of the existing Middle Fort Pond Brook sewer system should be prioritized to serve the following areas:

- High Street to Powdermill Plaza (Area 7),
- Spencer/Tuttle/Flint neighborhood (Area 10), and
- West Acton Center-A (Area 12) including the Gates and Douglas Schools.

The capacity of the Adams Street treatment facility's disposal beds currently limits the sewer extensions beyond these areas. The West Acton Planning Area probably will not be served in its entirety, excluding the area west of the railroad right-of-way. However, final delineation of sewer

areas should be conducted during a preliminary design phase.

Cluster Systems:

The following Needs Planning Areas have existing private systems that could possibly be tapped for municipal use:

- Marshall Crossing / Robbins Brook (Area 1)
- Nagog Woods/ Acorn Park / North Acton Woods (Area 2)
- East Acton Village (Area 3)
- Brookside Circle (Area 6)
- Nash and Downey neighborhood and Dover Heights (Area 11)

The private treatment facilities in Area 1, Area 2 and Area 3 all have under-utilized capacity that should be investigated for potential private/public partnerships. Regardless of the private systems' status, cluster/neighborhood systems should be utilized where capacity is available in the High Priority Area 3 (East Acton Village). Utilizing these private facilities can be combined with smaller shared systems and advanced onsite treatment systems to provide economic growth opportunity while maintaining the village character.
The focus of the Brookside Circle (Area 6) area should be to create shared systems in addition to keeping the existing treatment facility in service.

Capacity limits in the Middle Fort Pond Brook sewer system preclude the connection of the Nash and Downey neighborhood and Dover Heights (Area 11). The Dover Heights wastewater (septic) system exceeds regulatory limits for discharge capacity, which will require an upgrade to a treatment facility. This opportunity should be evaluated for a public-private solution in the neighborhood in addition to other shared and advanced system solutions.

Wastewater Management Districts:

The foundation for Wastewater Management Districts exists in the Town's septage management program. However, the final management program is dependent on input and commitment from local residents. A considerable public education and participation program should be implemented in each proposed District. Stakeholders should be identified and involved in the program through advisory committees, program review groups, and other volunteer opportunities. If stakeholders are brought into the process to provide insight and diverse views, the program will benefit and stakeholders often feel ownership of the results.

Wastewater Management Districts are recommended for the following Needs Planning Areas:

- Robbins Park (Area 4)
- Brucewood Estates (Area 5)
- Maynard Border (Area 8)
- Heath Hen Meadow (Area 9)
- West Acton Center-B (Area 12), west of the railroad right-of-way
- Indian Village (Area 13)
- Flagg Hill (Area 14)
- Acton Center (Area 15)

Financing and Costs
In implementing its first sewer infrastructure in 2002 Acton used progressive measures to

finance the project. These measures were enacted to ensure sustainability of the proposed project, as well as any future projects. All of these measures were successfully implemented during construction of the first sewer infrastructure.

As the Town moves forward, it faces two hurdles in constructing additional sewer infrastructure. The first is identifying a revenue source that could be used as a cash flow device to finance the project prior to betterments being issued to the expansion area.

The second hurdle is an anomaly within the State betterment legislation. This legislation allows Towns to assess betterments by frontage, area, or use. In charging by frontage or area the legislation allows for betterments to be redistributed when a system is expanded (in that way the new users pay for fixed costs like the treatment system construction). Unfortunately the user method is not provided that provision. In order to address this, the Town has submitted legislation that will allow all three methods of assessment the same mechanism to redistribute betterments.

The Engineer's opinion of conceptual-level costs for design and construction of the sewers to the West Acton Center-A area and Spencer/Tuttle/Flint area is between $8.0 million and $9.0 million (in 2006 dollars) depending on the extent of the sewered area, sewer configuration, and construction schedule. With long-term (life cycle) costs included, the present worth of the sewer extension is estimated to be between $9.0 million and $10.0 million. The Town expects to submit an application for a low interest construction loan to the State Revolving Fund followed by Town meeting votes to appropriate design funds and construction funds.

The Town will be well served by the unique flexibility of the Septage Management Enterprise Fund. As has been done in the past, costs for every aspect of any management plan will be identified and charged to beneficiaries of the service. This would allow the Town to, in the most extreme, hire a consultant to inspect Innovative/ Alternative systems and charge the homeowner for that service or to allow the homeowner to hire the consultant and pay a minimal fee that would cover oversight costs by the Town.

The Engineer's opinion of conceptual-level costs to implement EPA level 4 Wastewater Management Districts and sustain the districts for 20 years is $11.0 million to $13.0 million in present worth dollars. This includes active management of the program by town staff and subcontractor services for tank pumping and inspections.

Environmental Impacts of the Recommended Plan

The Recommended Plan is comprised of non-structural, private, and public structural solutions that will benefit the overall environmental health of Acton's water resources and reduce risks to public health. The recommended structural solution, extending sewers to the Spencer/Tuttle/Flint area and West Acton Center-A, will have some temporary construction impacts from noise, dust, and traffic due to general excavation activities. However, new NPDES Phase II requirements to regulate construction site runoff are directed at mitigating short-term and long-term impacts of construction.

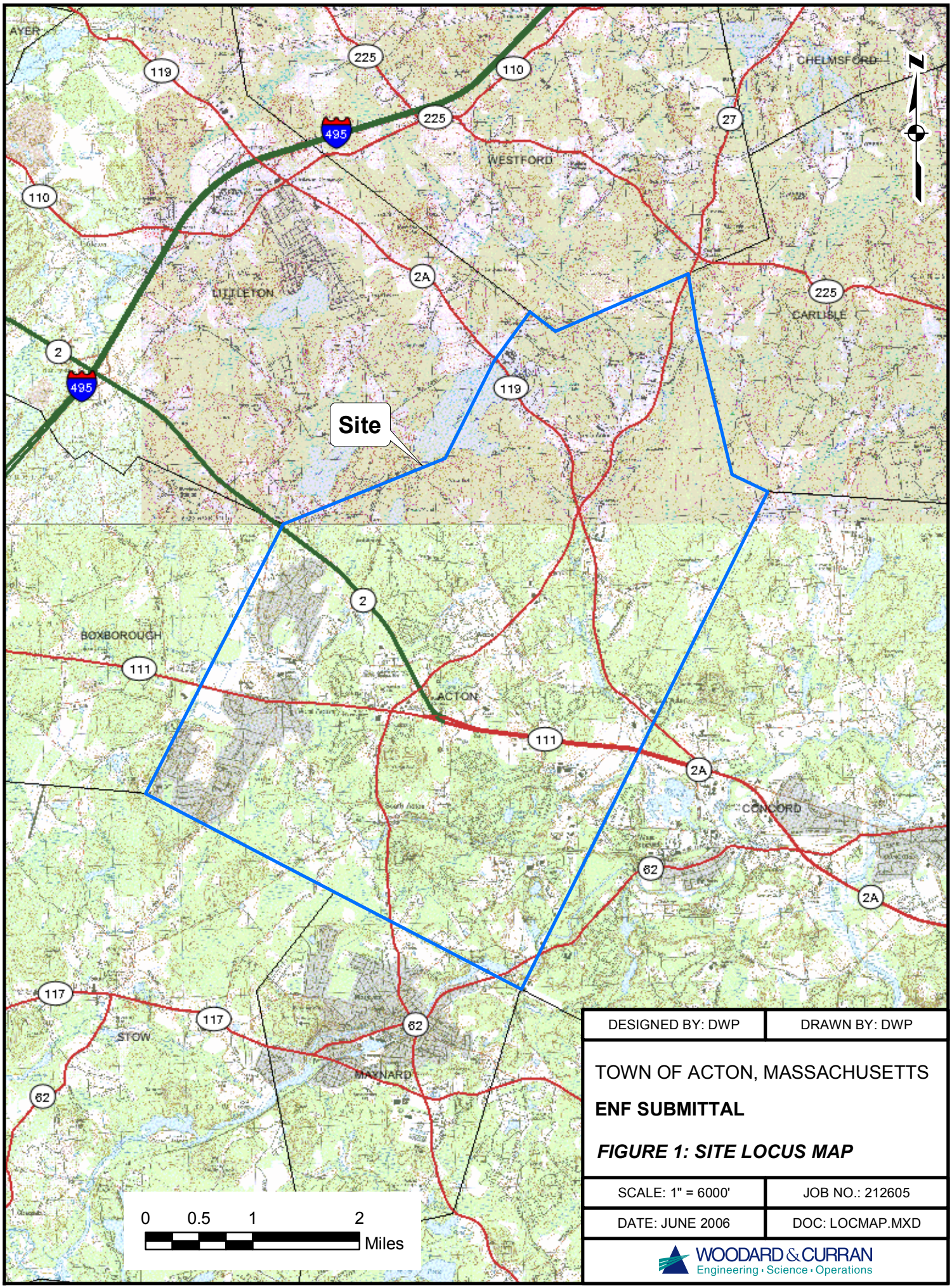
The recommended plan takes measures to minimize the environmental impact of construction activity through design, such as minimizing cross-country excavations and locating pump stations and other infrastructure away from resource areas, and during construction, such as requiring erosion and sediment control of runoff impacts. All required local permits necessary for construction of the Recommended Plan will be obtained and provide sufficient local official and public review under existing local by-laws and ordinances.

The recommended plan does not require additional disposal area or treatment facility construction. The Adams Street WWTF does not need alterations or expansion to accept and adequately treat and dispose of the wastewater.

Recommendations for use of cluster systems focus on use of the existing private facilities that are underutilized or require upgrade in the near future. Using these facilities would result in better treatment of wastewater in the immediate area of these facilities.

Implementation of greater levels of onsite wastewater management through Wastewater Management Districts is an environmental benefit. Acton has a unique opportunity to evaluate the effectiveness of wastewater management districts, and the overall Recommended Plan, in protecting valuable water resources using the Health Department's surface water quality surveillance program of 50 sites across the community's surface water network.

Attachment 1 – Figures



DESIGNED BY: DWP	DRAWN BY: DWP

TOWN OF ACTON, MASSACHUSETTS

ENF SUBMITTAL

FIGURE 1: SITE LOCUS MAP

SCALE: 1" = 6000'	JOB NO.: 212605
DATE: JUNE 2006	DOC: LOCMAP.MXD

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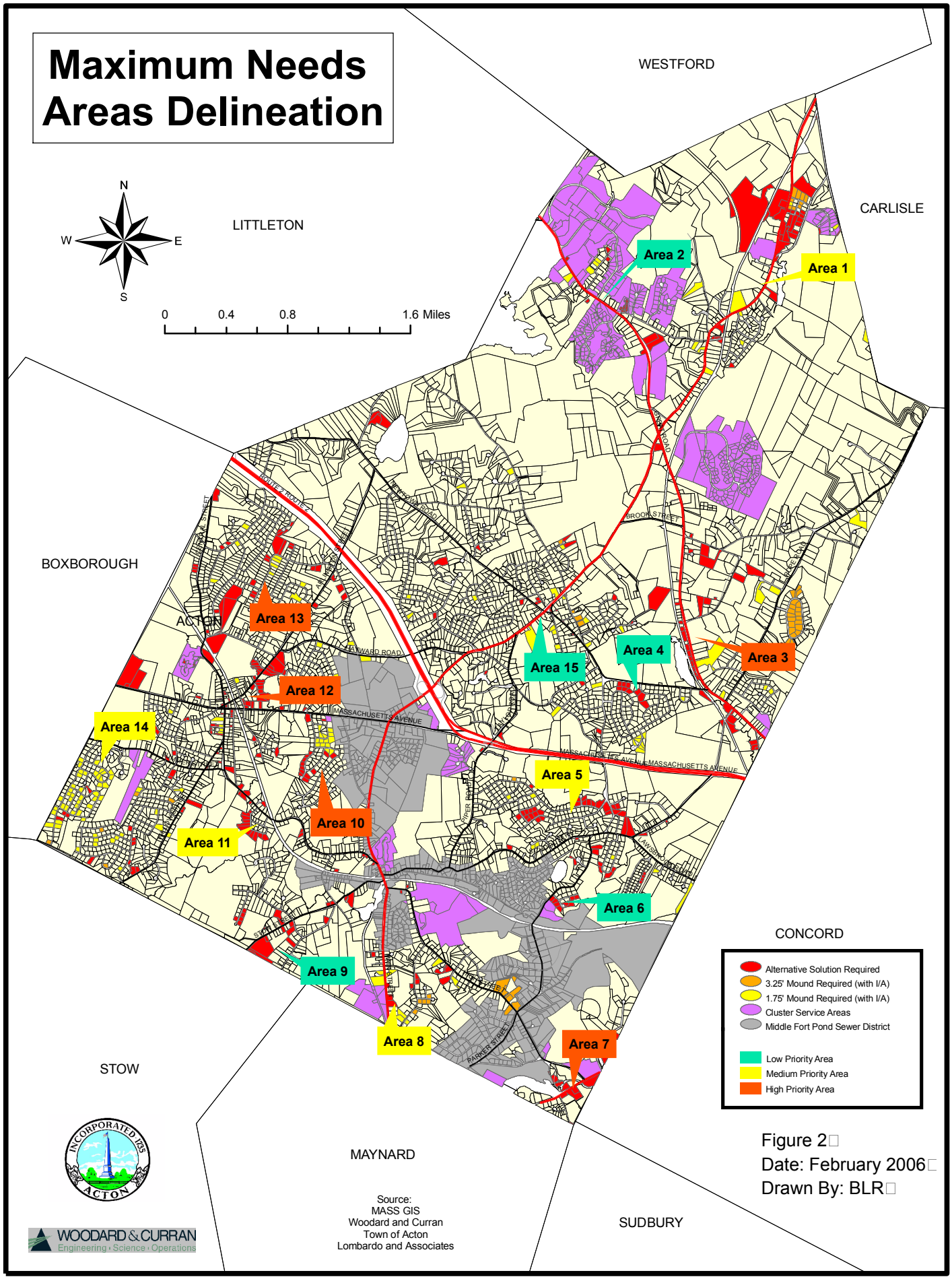

Figure 2
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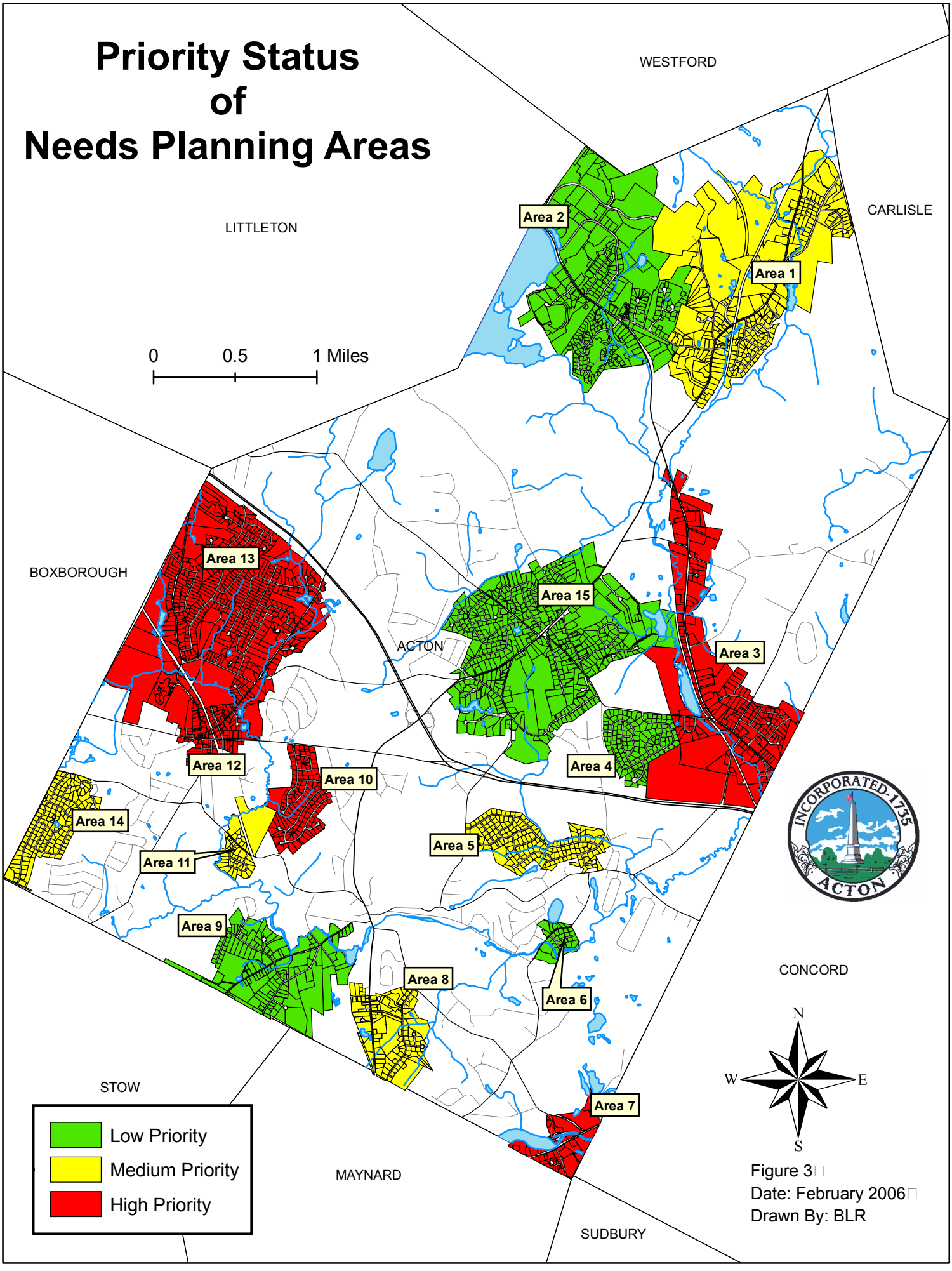

Figure 3
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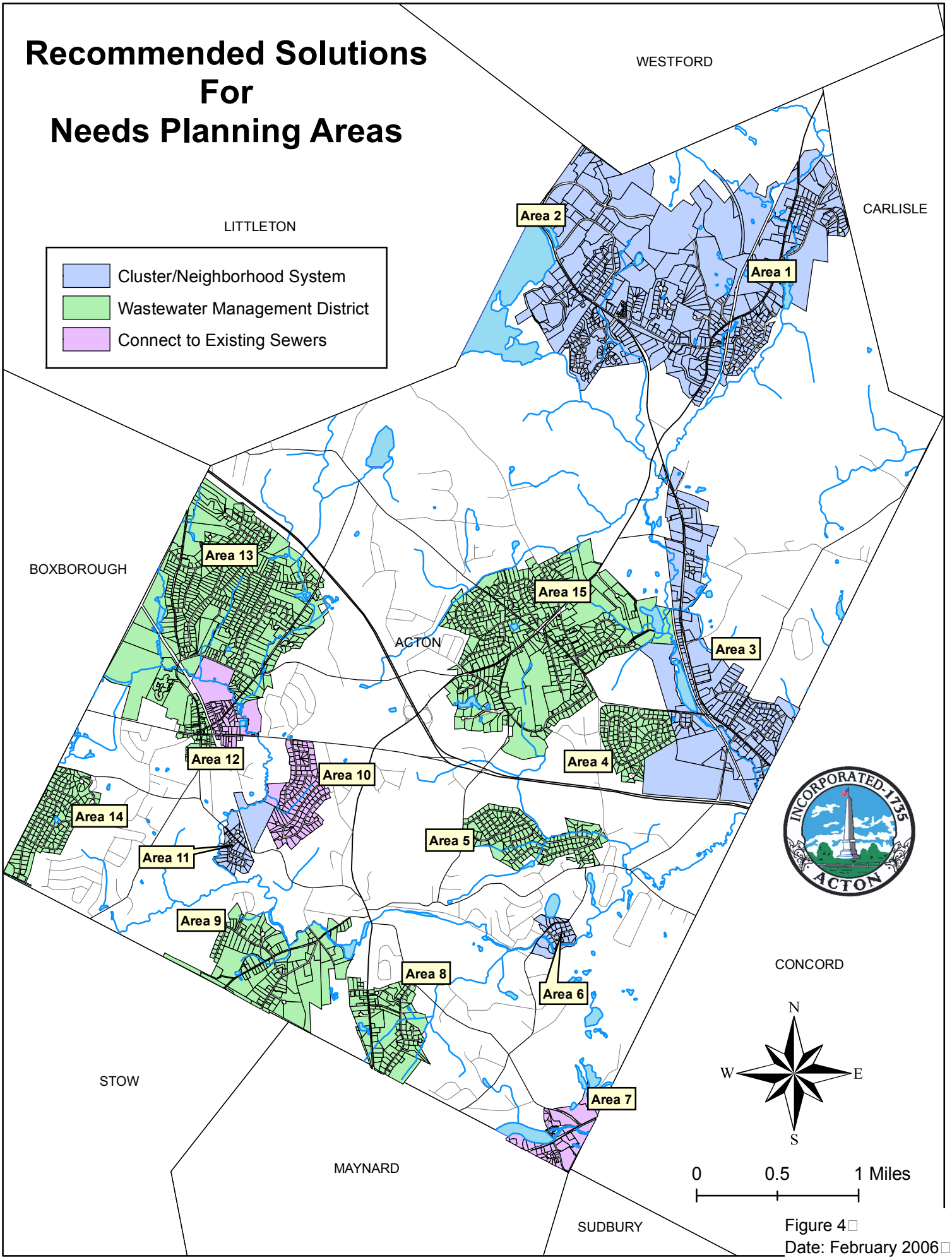
Recommended Solutions For Needs Planning Areas



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Attachment 3 – Comprehensive Water Resources Management Plan – Phase 2 Report (Bound Separately)